

MIRZOYAN, N. A., prof. KARAKHODZAYEV, B. KH., docent

Comparative results of treating visceral leishmaniasis with
varying doses of stibosurmin. Nauk. trudy SamMI 23:25-26 (1963)
(MIRA 17:1)

Causes and sequelae of insufficient treatment of visceral
leishmaniasis. Ibid. 21-22

1. Iz kafedry fakultetnoy terapii i kliniki ietskikh bolez-
ney Samarkandskogo meditsinskogo instituta.

MIRZOYAN, R.A. (MIRZOYAN, R.A.)

Incidence of the main types of Samarkand Province, Uzbek.
Study SamMI (MIRA 1974)

1. It is necessary to study the Samarkand Province...

NAGIYEV, M.F.; KULIYEVA, V.G.; MAMEDOVA, A.D.; MIRDZANYAN, N.M.

Kinetic study of the means of intensification of the process of
heterogeneous-catalytic synthesis of ethyl chloride. Azerb.
khim.zhurn. no. 4, 46-50, 1965. (MIRA J.R. 1967)

1. Institut neftekhimicheskikh protsessov AN Azerb. SSSR, Moscow, USSR
December 10, 1964.

MIRZOYAN, R., inzh.; AYRAPETYAN, A., inzh.

Automation of inspection tests of power transformers.
Prom.Arm. 4 no.12:35-38 D '61. (MIRA 15:2)

1. Armyanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta elektromekhaniki.
(Electric transformers—Testing)
(Automatic control)

KULOYAN, L.; MIRZOYAN, R.

Efficient combustion of gas fuel in the Armenian industry.
Prom. Arm. 6 no.11:26-29 N 153. (CIA 17:1

1. Yerevanskiy politekhnicheskij institut.

MIRZOYEV, Rustam Guseynovich, kand. tekhn. nauk; BRAGINSKIY, V.A.,
red.

[Design and construction of plastic parts] Iz opyta ras-
cheta i konstruirovaniia detalei iz plastmass. Leningrad,
1964. 25 p.
(MIRA 17:11)

MIRZAYEV, R. B.

Classifying factors influencing the selection of the system of
underground petroleum mining by the shaft method. Dokl. AN
Azerb. SSR 13 no. 3. 873-876 1977. (MLRA 10:9)

Institute of geology, Azerbaydzhanskoy SSR. Predstavleno akademikom
AN Azerbaydzhanskoy SSR M. A. Kashkayem.
(Petroleum engineering)

VIKRYAN, E.S.

Mechanism of the action of monoamine oxidase inhibitors on the
secondary blood circulation. Farm. i toks. zh no. 1:51-55. Ca-F
1966. (MIRA 18:17)

1. laboratoriya farmakologii se nevro-sensitivny sistemy
(rav. - prof. N.V. Kaverina) Instituta farmakologii
Komitetom AN SSSR, Moskva. Submitted April 18, 1966.

1. The first part of the document is a list of names and titles.

2. The second part of the document is a list of names and titles.

3. The third part of the document is a list of names and titles. y

Comparative pharmacological data regarding the action of strophanthin upon the heart of *Helix pomatia*. S. Mizuyama *Bull. biol. med. exptl. U. R. S. S. I.* 27:1 (1949); *Physiol. Abstracts* 22, 729. - Since the heart of the snail has no nerve cells, it forms an excellent object for testing the action of drugs. By isolating the nervous ganglia and the heart muscle both separately and simultaneously to the action of strophanthin it is possible to reproduce all the 3 phases characterizing the action of digitalis upon the isolated vertebrate heart: 1) the therapeutic phase - increase of amplitude of heart beat and slowing of rate; 2) acceleration of rate without change of initial character of contractions; 3) the toxic phase - arrhythmic, systolic arrest of ventricle. The inhibitory effect of the central nervous system is abolished by large doses of strophanthin applied to the heart, whereas the acceleration of heart rhythm caused by small doses is due to the excitatory effect upon the heart muscle itself.

M. W. R.

MIRZOYAN, S.A.

Chemical control of the mining oak snout beetle (*Rhynchaenus (Orchestes) quercus* L.). *Izv. AN Arm. SSR. Biol. i sel'khoz. nauki.* 4 no.2: 177-183 '51. (MLRA 9:8)

1. Institut fitopatologii i zoologii Akademii nauk Armyanskoy SSR. (Armenia--Snout beetles) (Oak--Diseases and pests) (Insecticides)

MIRZOYAN, S.A.

Bark beetles of conifers in the forest plantations of the Dilishan forestry. Izv. AN Arm. SSR. Biol. i sel'khoz. nauki. 4 no. 10: 909-919 '51. (MLRA 9:8)

1. Institut fitopatologii i zoologii Akademii nauk Armyanskoy SSR. (Dilishan--Bark beetles) (Coniferae--Diseases and pests)

LOZOVY, D.I.; MIRZOYAN, S.A.

Harmfulness of mistletoe in the forests of Transcaucasia. Izv. AN
Arm. SSR. Biol. i sel'khoz. nauki. 5 no. 10: 83-88 '52. (MLBA 9:8)

1. Botanicheskiy sad AN Gruzinskoy SSR i Sektor zashchity rasteniy
AN Armyanskoy SSR.

(Transcaucasia--Mistletoe) (Trees--Diseases and pests)

MIRZOYAN, S.A.

Multiplication of the winter measuring worm (*Operophtera brumata*), mottled umber moth (*Hybernia defoliaria*), gypsy moth (*Porthetria dispar*), and brown tail moth (*Euproctis chrysorrhoea*) in the forests of the Armenian S.S.R. *Izv. AN Arm. SSR. Biol. i sel'khoz. nauki* 7 no.1: 81-90 Ja '54. (MLBA 9:8)

1. Sektor zashchity rasteniy AN Arm. SSR.
(Armenia--Trees--Diseases and pests)

MIRZOYAN, S.A.

Bark beetles (Coleoptera, Ipidae) infesting deciduous trees of the
Armenian S.S.R. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki 7 no.7:
59-70 J1 '56. (MLBA 9:8)

1. Sektor zashchity rasteniy Akademii nauk Arm. SSR.
(Armenia--Bark beetles)

USSR/General and Systematic Zoology. Insects. Harmful
Insects and Acarids. Forest Pests.

Abs Jour : Ref Zhur - Biol., No 3, 1959, No 11655

Author : Mirzoyan S.A.

Inst : -

Title : The Pine Bug *Aradus cinnamomeus* Pz. (Hemiptera -
Heteroptera Aradidae) in Armenia.

Orig Pub : Entomol. obozreniye, 1958, 37, No 1, 85-87.

Abstract : At the examination of the pine trees of Dilizhan
in 1951-1955, the bug(B) is found to be in a de-
pressed state; a marked extension of the area is
not noticeable. The quantity of K in 1951 did not
exceed 82 per one tree. K settles more densely
on the whorls, at a height of not more than 2 m
with a thickness of the bark scales of not less
than 2-3 mm., which are not exposed to direct sun
rays but which are not found in strong shade. K
colonizes very weakened trees, 7-15 years old
lagging in size. At the end of November, it

Card : 1/2

- 38 -

MIRZOYAN, S.A.

Apple-fruit miner ("Argyresthia conjugella Zell.) and its control
in the Armenian S. S. R. ~~Iss.~~ AN Arm. SSR. Biol. nauki 14, no.11:
53-64, N '61. (MIRA 15:3)

1. Lesnaya opyt'naya stantsiya Glavnogo upravleniya lesnogo
khozyaystva.

(ARMENIA--APPLE--DISEASES AND PESTS)
(MOTHS)

MIRZUYAN, S.A.; BRILINGZ'YAN, S.A.; KHACHATRYAN, K.A.; MAMIKONYAN, . . .

Effect of iznermiz mineral water on the morphology of the central
and peripheral nervous system in experimental tetanus. *Tr. Akad. nauk
in klin. med. S.S.S.R.* 1974, 18, 1.

L 36811-66 EWT(1) RO

ACC NR: AP6005041

(A)

SOURCE CODE: UR/0354/65/000/011/0051/0055

AUTHOR: Mirzoyan, S. A. (Candidate of biological sciences)

ORG: none

TITLE: Poplar pests and ways of combating them

SOURCE: Lesnoye khozyaystvo, no. 11, 1965, 51-55

TOPIC TAGS: plant injury, insect control, insecticide

ABSTRACT: Pests which attack poplars are described in relation to locality, appearance, and the manner and period of breeding. For effective control, this knowledge is of great importance. In areas infested with the mole cricket (responsible for 60-70% loss in seedlings), lamellicorn (which stays in the soil for 2-3 years) and black and click beetles, 25% hexachloran solution (40-100 kl/hectare) was administered into the soil. Good results were also obtained with a mixture of hexachloran and phosphate flour, or granulated superphosphate (in a ratio of 1:2) against the click beetle. Dusting of surface soil layers and food plants with DDT or 20-25 kg hexachloran/hectare was employed against moths, and scattered maize grain treated with Zn phosphide (50 g poison/kg grain and 30 g vegetable oil) was effective against the mole-cricket. Of great importance is selection of the types of species for planting, their resistance to pests and local diseases. Protecting the trees with brushwood is desirable

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Card 1/2

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ACC NR: AP6005041

since some insects appear to enjoy light. Timely and proper pruning, removal of infected and defective trees, barren tops, and sick stems, greatly reduced the number of pests. Proper irrigation was essential, as was scraping, and coating of ovipositors. Excellent results were obtained by the use of enterobacterin against silkworm, satin, and winter moths. Lately, spraying with concentrated solutions of toxic chemicals (6-25 l/hectare) has been much in use. Dusting against leaf beetles has been found less satisfactory; it required large amounts of the preparations and much was carried away by wind. Aerosols were found to be very effective against grown insects. Among the organic phosphates, merkaptophos, octamethyl, and other compounds were highly effective against nettles, mealybugs, ticks. etc.

SUB CODE: 06/ SUBM DATE: none

ms
Card 2/2

MNDZHOYAN, A.L., red.; AKOPYAN, I.Ye., red.; AFRIKYAN, V.G., red.;
MARKARYAN, M.O., red.; MIRZOYAN, S.A., red.; MIDZHOYAN,
A.L., red.; RYSS, S.M., red.

[Arpenal and the results of its clinical use] Arpenal i opyt
ego klinicheskogo primeneniia. Erevan, Izd-vo AN Armianskoi
AAK, 1964. 387 p. (MIRA 17:11)

1. Akademiya nauk Armyanskoy JSk, Erivan. Institut tonkoy
organicheskoy khimii.

H

Toxicology of trisecolophosphate G. A. Mednikyan
and S. A. Mirzoyan *J Physiol* (U.S.S.R.) 20, 369 (1968). -A (thorough toxicological investigation of tri-
ecolophosphate (B) using cats, dogs, guinea pigs, mice,
frogs, yeast and enzymes. It is not a protoplasmic poison
but acts after a certain latent period (5 to 20 days), and
apparently shows a selective action on the central nervous
system H. Cohen

The comparative pharmacology of strophanthin S. A. Mizuhara. *J. Physiol. U.S.S.R.* 24, 260-5 (1958). *Kem. Zvez.* 1959, I, 464, cf. *C.A.B.* 32, 712. In order to study the purely myotropic action of strophanthin, experiments were carried out on the heart of *Hirio pomaria*, which is regulated by the central nervous system and contains no intracardial or epicardial ganglia. In its usual effect on the central nervous system in dilus up to 0.2 mg/kg strophanthin has first a stimulating and then a paralyzing action on the inhibitory center. When it acts locally on the heart, strophanthin in dilus 0.1 mg/kg has an inhibiting effect on isolated heart muscle. It was also has an inhibiting effect on isolated heart muscle.

MIRZOYAN, S. A.

"The Effect of Glucose on the Stability of Adrena-
lin," *Farmakol. i Toksikol.*, 4, No. 2, 1941. *Sbiar*
Phar., Yrevan Med. Inst.,
-1941-.

MIRZOYAN, S.A.; AMIRAZADYAN, TS.A.; OVYAN, Ye.M.

Experimental pharmacological investigation of the preparations of
Cephalaria gigantea. Nauch. trudy Inst. fiziol. AN Arm. SSR, 1:
99-130 '48. (MLBA 9:8)
(ARMENIA--BOTANY, MEDICAL) (ALKALOIDS--PHYSIOLOGICAL EFFECT)

MIRZOYAN, S.A.; BARASYAN, O.V.

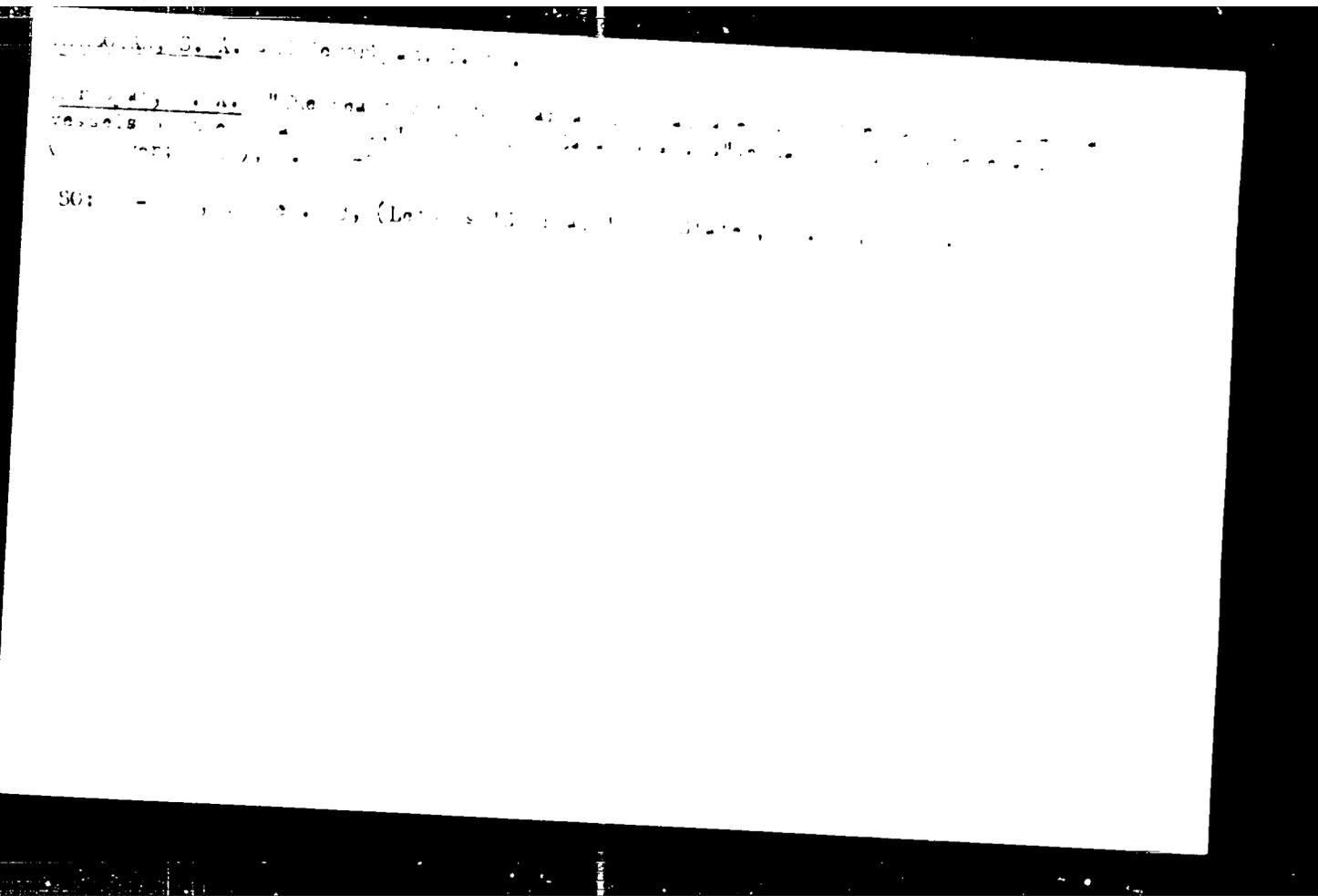
Pharmacological characteristics of the preparations of *Dipsacus strigosus*. Nauch.trudy Inst.fiziol.AN Arm.SSR. 1:131-144 '48.
(MLBA 9:8)

(ARMENIA--BOTANY, MEDICAL) (ALKALOIDS--PHYSIOLOGICAL EFFECT)

MIRZOYAN, S.A.; TATEVOSYAN, T.S.; AMIRZADYAN, TS.A.

The active principles and some aspects of the pharmacological
effect of plantain (*Plantago major*). Nauch. trudy Inst. fiziol.
AN Arm. SSR. 1:145-152 '48. (MLRA 9:8)

(PLANTAIN) (ALKALOIDS--PHYSIOLOGICAL EFFECT)



MIKROYAN, G. A.

W 510

Ob uchastii intveroryetsyektivnykh impulsov v izmenenii reaktivnos
ti rvotnogo tsyentrak qmorfinu. Truby Yuzh. IN-Ta, VII. 6,
1949, S. 13-21

SC: Lotopis' No. 34

MIRLOYAN S. A. I OVLBYEVAN, A. M.

30534

Nyekotoryye storony farmakologicheskogo deystviya i klinicheskoy tsyennosti
preparatov plumbago europeya. Trudy Yohryevansk. MyeD IN-TA, WIF. 6, 1949,
S. 127-30

SO: Letopis'No. 34

PAVLOVA, N.Ya.; MYAZDRIKOVA, A.A.; SAMOYLOVA, Z.T.; POLYAKOVA-KONDORSKAYA,
N.B.; MIRZOYAN, S.A.; MENTOVA, V.

Pharmacology and Toxicology Section of the Moscow Society of Physiolo-
gists, Biochemists and Pharmacologists. *Farm. i toks.* 16 no.1:59-60 Ja-
F '53.
(MLRA 6:6)

1. I MOLMI (for Pavlova, Myazdrikova and Polyakova-Kondorskaya). 2. In-
stitut terapii Akademii meditsinskikh nauk SSSR (for Samoylova). 3. Ye-
revanskiy meditsinskiy institut (for Mirsoyan).
(Pharmacology--Societies) (Physiology--Societies) (Biochemistry--
Societies)

MIRZAYAN, S. A.

"Reflex Effect of Olfaction on Blood Vessels of Rabbits Ear,"
Farmakologiya, Vol. 16, No. 1, p 60, 1973.

Yerevan Sci. Institute

[Comment: The following is taken from a paper presented 14 March 1952 at the
95th Meeting of the Section of Pharmacology, and Toxicology, Moscow Society of Physiolo-
gists, Biochemists, and Pharmacologists.]

SC: W-27347, 1, Aug 1953

MIRZOYAN, S. A.

USSR.

Effects of various irritants on reflex action from rabbit ear vascular receptors on hematogenesis and respiration. S. A. Mirzoyan and S. V. Davlatyan (Med. Inst., Erevan). *Sovetskoye Fiziol.* 18, No. 2, 11-16(1968).—Acetylcholine and nicotine were tested, at 5 and 10 p.p.m., in comparison with mech. and thermal irritations. The vascular system of rabbit ears proved sensitive to all 3 types of irritant, with a high degree of interoceptor activity. Sharp but transitory depressor effects and increases in respiration depth and rate were observed after perfusion with acetylcholine and nicotine soles. Julian F. Smith.

MIRZOYAN-S.A.

✓ Diuretic activity of strawberry-tomato preparations.
 S. A. Mirzoyan and R. A. Nazaretyan (Med. Inst., Erevan).
 Farmakol. i Toksikol. 10, No. 4, 39-42 (1965).—The straw-
 berry-tomato prepn. contains ascorbic acid 0.09, carotene
 0.1, fruit acids 4-5%, and significant amts. of alkaloids.
 The 10% alc. ext. is diuretic (min. effective dose in mice, 0.5
 g./kg.); in medium doses up to a max. of 2 g./kg. the in-
 crease in diuresis was 45-123.5%. Chlorokinetics was
 intensified (46-98.5% rise in Cl output). Tests with the
 total alkaloids from the fruits showed that they largely are
 responsible for the diuretic action. Julian F. Smith

-*Chin* 2
Med
 Pharmacology

MIRZOYAN, S.A.; DOVLATYAN, S.V.

Effect of Dzhermuk mineral waters on the secretion and chemistry of bile. Vop.kur.fizioter. i lech. fiz.kul't. 21 no.1:7-12 Ja-Mr '56.

1. Iz eksperimental'nogo otdela (zav. - prof. S.A.Mirzoyan) Instituta kurortologii i fizicheskikh metodov lecheniya Ministerstva zdravookhraneniya Armyanskoy SSR (dir. - dotsent S.A.Geshmarityan)
(DZHERMUK—MINERAL WATERS) (BILE)

MIRZOYAN, S.A.; DOVLATYAN, S.V.

Effect of Dzhermuk mineral water on the motor function of the gall
bladder. Vop.kur.fizioter. i lech.fiz.kul't. 21 no.3:18-22 J1-S '56.
(MLRA 9:10)

1. Iz eksperimental'nogo otdela (zav. - prof. S.A.Mirzoyan) Instituta
kurortologii i fizicheskikh metodov lecheniya (dir. dotsent S.A.
Chzhmarityan) Ministerstva zdravookhraneniya Armyanskoy SSR.
(DZHERMUK--MINERAL WATERS)
(GALL BLADDER)

MIRZOYAN, S.A., TATEVOSYAN, T.S.

Pharmacology of poly preparations. Farm. i toks. pl no.5:28-33
S-O '58 (MIRA 11:11)

1. Kafedra farmakologii (zav. prof. S.A. Mirzoyan) Yerevanskogo
meditsinskogo instituta.

(PLANTS,

Teucrium polium, pharmaco' (Rus))

MIRZOYAN, S.A.; MOVSESYAN, T.G.

Mechanism of the action of magnesium sulfate. Trudy Erev.med.inst.
no.11:31-40 '60. (MIRA 15:11)

1. Iz kafedry farmakologii (zav. prof. S.A.Mirzoyan) Yerevanskogo
meditsinskogo instituta.
(MAGNESIUM SULFATE--PHYSIOLOGICAL EFFECT)

MIRZOYAN, S.A.; DOVLATYAN, S.V.

Reflexes from the intestinal interoceptors to some vegetative functions of the body under the influence of Dzhermak mineral water. Vop. kur. fizioter. i lech. fiz. kul't. 25 no. 5:422-427 S-0 '60. (MIRA 13:10)

1. Instituta kurortologii i fizicheskikh metodov lecheniya Armyanskoy SSR, Yerevan.
(REFLEXES) (DZHERMAK—MINERAL WATERS) (INTESTINES—INNERVATION)

MIRZOYAN, S.A.; GRIGORYAN, R.A.

Changes in the sensitivity of cholinergic structures of the gastrointestinal tract and results of a spectral analysis before and after a course of treatment with the Ankavan mineral water. Dokl. AN Arm. SSR 33 no.2:83-90 '61.

(MIRA 14:10)

1. Institut kurortologii i fizicheskikh metodov lecheniya Ministerstva zdravookhraneniya Armyanskoy SSR. 2. Chlen-korrespondent AN Armyanskoy SSR (for Mirzoyan).

(ARMENIA--MINERAL WATER) (ALLIMENTARY CANAL) (NEOSTIGMINE)

MIRZOYAN, S.A.; MOVSESYAN, T.G.

Reflexes from vascular receptors of the rabbit ear produced by sodium nitrite and platyphylline and the mechanism of their formation. Biul. eksp. biol. i med. 52 no.12:54-58 D '61.

(MIRA 14:12)

1. Iz kafedry farmakologii (zav. - chlen-korrespondent AN Arмянaskoy SSR prof. S.A.Mirzoyan) Yerevanskogo meditsinskogo instituta (dir. - prof. L.S.Arutyunyan). Predstavlena deystvitel'nym chlenom AMN SSSR V.V.Zakusovym.

(BLOOD VESSELS)

(VASOMOTOR DRUGS)

(REFLEXES)

MIRZOYAN, S. A.

(Yerevan)

"Gastric Secretory Effect of Meat Extracts and Gastrin During Acid
Perfusion of Antrum Pylori."

report presented at the 22 Intl. Congress of Physiological Sciences,
Leiden, The Netherlands, 10-17 Sep 1962.

ALIYEV, Teymur Movsum Ogly, MIRZOYAN, Sergey Semenovich, ARENSON, R. I.,
retsensent, redaktor: LAVHUSHKO, P. N., retsensent, KORNEV, M. I.,
redaktor: PETROVA, Ye. A., veduschiy redaktor, TRCFIMOV, A. V.,
tekhnicheskiy redaktor

[Machines and mechanical devices for petroleum production] Mashiny
i mekhanizmy dlya dobychi nefti. Moskva, Izd. nauchno-tekhn. izd-vo
neft. i gazo-dobivnoi prom. 1979. 21 p. (MIRA 10-79)
(Petroleum industry: equipment and supplies)

MIRZOYAN, V.A.

Pigment formation in *Pasteurella ovis*. Zhur.mikrobiol. epid. i immun.
no.8:107 Ag '55. (MLRA 8:11)
(PASTURELLA) (PIGMENTS)

CHKALOV, V.

CHKALOV, V.: Avitaminoses of fowl and the measures of the fight against them. Chkalov. Chkalov Publishing House. 1959. 8 pages. From: [unclear] [unclear]. (Chkalov Oblast Administration of Agriculture, Administration of Agricultural Propaganda, Veterinary Department).

SO: Veterinariya; 9; (1); January 1960; [unclear] [unclear].

MIRZOYAN, V.

DOBYCHIN, N. AND MIRZOYAN, V.: Diseases of agricultural fowl, their prevention and treatment. Chkalov. Chkalov Publishing House, 1952. 48 pages with illustrations. Price 80 kopeks. 3,000 copies.

SO: Veterinariya; 30; (3); March 1953; Uncl. TABCON

DEMIRCHOGLYAN, G.G.; MIZOYAN, V.S.

Development of electrical reaction of the retina in ontogenesis.
Doklady Akad. nauk SSSR 90 no.3:371-374 21 May 1953. (CLML 24:5)

1. Presented by academician K. M. Bykov 10 March 1953. 2. Institute of
Physiology of the Academy of Sciences Armenian SSR.

USSR/Human and Animal Physiology. The Nervous System.

v

Abs Jour: Ref. Zhur-Biol., No 6, 1958, 27333.

Author : V.S. Mirzoyan.

Inst :

Title : The Effect of Blinding on Recovery from Disturbances
in Locomotion Produced by Hemisection of the Spinal
Cord at Different Stages in the Ontogeny of the
Rabbit. Ontogeny of the Rabbit.

Orig Pub: In the collection: Vopr. vyssh. nerv. deyat-sti i kompen-
satorn. prisposobleniy, Vyp. 2, Yerevan, AN ArmSSR, 1957,
265-274.

Abstract: Following hemisection of the spinal cord, restoration
of locomotor function occurred in adult rabbits
after one to two months, in month-old rabbits after

Card : 1/2

MIRZOCYAN, V. S.: Master Biol Sci (1955) -- "An experimental study of functional reorganizations in enucleation, injury to the spinal cord, and amputation of the extremities". Yerevan, 1956. Thesis (Physiological Lab of the Acad Sci USSR and Inst of Physiology of the Acad Sci Armenian SSR), 112 copies (KL, No 14, 1956, 1957)

MIRZOYAN, Ye., inzh.

The IMT-4/2,5 electric actuating mechanism. Prot. App. 4. 19. 1963
Ap '61. (Minsk 1963)

(Servomechanisms)

MIRZOYAN, Ye.; inzh.

The DSM₂ and ~~DSM~~2 instruments. From Arm. 4 no. 10 1961.
(Electronic instruments)

DOBRYNIN, Ya. V. (DOBRYNIN, Y. V.)

1. Izobrazheniya i opisanie... (faint text)

2. Izobrazheniya i opisanie... (faint text)
AMN SSSR prof. A. I. Timofeyevskiy... (faint text)
onkologii: AMN SSSR... (faint text)
"Lokrin".

MIRZOYAN, Zh., inzh.

Utilization of the scavenging water of boilers. Prom.Arm. 5 no.5:49
My '62. (MIRA 15:7)

(Boilers—Cleaning)

"APPROVED FOR RELEASE: 06/14/2000

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R001134610018-6"

MIRZOYANTS, G.K.

Schoenlein-Henoch diseases. Vrach. delo no.5:140-142 My '61.

(MIA 2.10)

1. Kafedra gospital'noy terapii (zav. - prof. N.S.Ivanov)

Rostovskogo meditsinskogo instituta.

(PU PUNA(PATHOLOGY))

ANTONOV, V.I.; LYUFEVICH, O.V.; MIRZAYANTS, L.F.; SHCHERBATYKH, M.A.

The SDA-250 desiccating and grinding unit for the production of powdered milk. *Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.-nauch.1 tekh.inform. no.3:48-49 '62.* (MIRA 15:5)
(Milk, Dried)

KASATKIN, N.I.; MIRZOYANTS, N.S.; KHOKHITVA, A.P.; NECHAYEVA, I.P.; KHODAKOVA, I.I.

Conditioned orientation reflexes in infants during the first year of life.
Zhur.vys.nerv.deiat. 3 no.2:192-202 Mr-Apr '53. (MLRA 6:6)

1. Laboratoriya vysshey nervnoy deyatel'nosti rebenka Instituta pediatrii
Akademii meditsinskikh nauk SSSR. (Conditioned response)

MIRZOYANTS, N.S.

Conditioned orientation reflex and its differentiation in a child.
Zhur.vys.nerv.deiat. 4 no.5:616-619 S-O '64. (MIRA 8:7)

1. Laboratoriya vysshey nervnoy deyatel'nosti rebenka Instituta
pediatrii AMN SSSR.

(REFLEX, CONDITIONED,
orientation, in child.)

(PERCEPTION,
orientation conditioned reflex in child.)

MIRZOYANTS, N.S.

The problem of slow rhythm in electroencephalography of infants
[with summary in English]. Zhur.vys.nerv.deiat. 8 no.4:531-536
JL-Ag '58 (MIRA 11:9)

1. Otdel razvitiya Insituta pediatrii AMN SSSR.
(ELECTROENCEPHALOGRAPHY,
in inf., slow rhythm (Rus))
(INFANTS (NEWBORN), physiology
EEG, slow rhythm (Rus))

MIMZOYANTS, N.S.

Bioelectrical activity of the cerebral cortex of infants during
drowsiness and in the initial phase of natural sleep. Zhur.vys.
nerv.deiat. 11 no.3:432-437 My-Je '61. (MIRA 14:7)

1. Section of Child Development and Upbringing, Institute of
Pediatrics, U.S.S.R. Academy of Medical Sciences, Moscow.
(SLEEP) (ELECTROENCEPHALOGRAPHY)

MIRZOYANTS, N.S.

Change in the bioelectric activity of the brain in infants in
response to rhythmic light stimulation. Zhur. vyzn. nerv. delat.
11 no.6:1005-1011 N-D '62. (MIRA 1963)

1. Institute of Pediatrics, U.S.S.R. Academy of Medical
Sciences, Moscow.

(ELECTROENCEPHALOGRAPHY)
(LIGHT--PHYSIOLOGICAL EFFECT)

ANNANEPESOV, Kh.; MIRZOYANTS, H.S., epidemiolog; MAMEDOV, S.D., epidemiolog.

Control of intestinal infarctions in Geok-Tepe District.
Zdrav. Turk. 7 no.3:34-37 Mr'63. (MIRA 16:6)

1. Glavnyy vrach Geok-Tepinskogo rayona (for Annanepesov).
 2. Turkmenskaya respublikanskaya sanitarno-epidemiologicheskaya stantsiya (for Mirzoyants, Mamedov).
- (GEOK-TEPE DISTRICT—INTESTINES—INFARCTION)

MIRZOYANTS, P., insh.

Development of artificial refrigeration in Armenia. Khol. tekhn.
34 no. 4: 53-54 G-D '57. (MIRA 11:1)
(Armenia--Refrigeration and refrigerating machinery)

MIRZAYANTS, P.

Use of ammonia vapor heat for water in the Sevan fish processing plant. Izv. Arm. A. No. 4:44-45 Ap '61.

(MIPA 14:6)

1. Upravleniye pishchevoy promyshlennosti Sovnarkhoza Armyanskoy SSR.

(Armenia—Fish processing plants)
(Ammonia—Thermal properties)

MIRZOYANIS, P.M., inzh.

Utilization of natural heat and cold sources at the "Dzhermuk" plant
of mineral waters. Khol. tekhn. 38 no. 1:48 Ja-F '61. (MIRA 14:4)

(Mineral waters) (Heat exchangers)

MIRZOTEV, A.

Changes in the circuit of the "Rekord" television set. Radio
no.4:45 Ap '60. (MIRA 1):8)
(Television--Receivers and reception)

MIRZOYEV, A.D., inzh.-tekhnolog

Improved design for brush holders used in DK-103G traction motors.
Elek. i tepl. tiaga 3 no.3:16-17 Mr '59. (MIRA 12:5)

1. Motorvagonnoye depo Aprelevka, Moskovsko-Kiyevskoy dorogi.
(Electric railway motors--Equipment and supplies)
(Brushes, Electric)

MIRZOYEV, A. D., inzh.; SIDENKO, I. K., radist

Operation and repair of the radio equipment of trains. Elek.
i tepl. tiaga 6 no.9:21-23 S '62. (MIRA 15:10)

1. Depo Aprelevka Moskovskoy dorogi.

(Railroads—Electronic equipment)
(Railroads—Communication systems)

Yur' 20 V
Kulakova, A.V., Candidate of Technical Sciences, Mirozhev, A.I.,
Engineer, Astin, S.I., Engineer, Kadyakova, V.A., En. Engr,
and Kazarova, L.I., En. Engr.

The electric strength of spiral stator windings made with
spiral styroflex insulation. (Spiral'nyye stator'nyye obmotki
statornykh kabeley s vyuzhnoy spirally-stirofleksom [Izdatel'stvo...])

"Vestnik Elektropromyshlennosti" (Bulletin of Electrical
Industry) 1977, Vol. 1, No. 1, pp. 1-4.

Spiral styroflex insulation consists of styroflex tape
wound in an open spiral. It has a high dielectric strength and
further close spiral styroflex tape. The insulation has a
high frequency characteristic which is very important
in cutting down the number of insulator stations on trans-
mission lines. The article gives data on the electric strength
of insulation of this kind at various values of applied volt-
age, namely, d.c., impulse, short and long term 50 c/s a.c. and
information about the nature of breakdown in the insulation.
The article also gives the results of determination of break-
down voltage of short lengths of cable with spiral styroflex
insulation used in the frequency range 50-1000 Hz with
short and long term application of 100 and 500 c/s a.c. and
gives a statistical treatment of the experimental data, by
the prediction length of cable. It also gives the results of
investigations of over voltage on switches and their fault
conditions on an experimental line in application to the remote

The electrical strength of the
spiral at different angles of

feeding system and the
strength of the insulation at
turn.

It is concluded that the
styroflex film over
the order of 200 V/mm
a.c. is 20 kV/cm. The
of cable material with
increase in the thickness
covering. The electrical
electrical strength of the
the relation between the
the nature of the insulation
spiral at different angles
greater than 10 degrees
on short lengths of cable
was 3700 V. The electrical
with direct current at
conditions of 1000 V. The
R. The electrical strength
out at 1000 V. The electrical
conditions with a.c. of
of 700 volts 1000 V.

KULAKOVA, R.Ye., kand.tekhn.nauk; MIRZOEYEV, A.G., inzh.; SKROSPFILOVA, Ye.Y.,
inzh.

Power cables with polyethylene insulation for 10 kv. voltage. Vest.
elektroprom. 31 no.3:41-45 Mr '60. (MIRA 1:16)
(Electric insulators and insulation)
(Electric cables)

KULAKOVA, R.V., kand.tekhn.nauk; MIRZOYEV, A.G., inzh.

Underground 500 volt cable networks for rural electric power
distribution. Vest. elektroprov. 33 no.9:7-10 S '62. (MIRA 15:10)

(Electric lines—Underground) (Electric cables)
(Rural electrification)

AKHMEDOV, Sh.T.; GUSEYNOV, D.A.; MIRZOYEV, B.M.

Synthesis of cymenes by alkylation of toluene. Uch. zap. AGU. Ser.
fiz.-mat. i khim. nauk no.5:59-75 '61. (MIRA 16:6)
(Cymene) (Toluene) (Alkylation)

VEL'TISHCHEV, Yu.Ye.; MASHKEYEV, A.K.; MIFZOYEV, B.M.; BYKOVA, N.S.

Method of determining inulin and sugar in the blood by means
of the anthrone reagent. Lab.delo 9 no.3:30-34 Mr '63.
(MIRA 16x4)

1. Kafedra pediatrii (zav. - deystvitel'nyy chlen AMN SSSR
prof. G.N.Speranskiy) Tsentral'nogo instituta usovershenstvo-
vaniya vrachey i laboratoriya akademika A.G.Speranskogo pri
Institute vysshey nervnoy deyatel'nosti i neyrofiziologii
AMN SSSR.

(INSULIN)

(BLOOD SUGAR)

(ANTHRONE)

L 08831-67 EMT(1) SCTB DD/GD

ACC NR: AT6036691

SOURCE CODE: UR/0000/66/000/000/0396/0397

AUTHOR: Yuganov, Ye. M.; Mirzoyev, B. M.; Krylov, Yu. V.; Kuznetsov, V. S. 31

ORG: none

TITLE: Material for the physiological and hygienic establishment of permissible levels of noise pulses (acoustic shock waves) [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 396-397

TOPIC TAGS: acoustic biologic effect, sonic boom, electroencephalography, psychophysiology, blood chemistry, endocrinology

ABSTRACT:

Supersonic aviation has added acoustic shock (the impact of pulsed noise, commonly called a sonic boom) to the range of noise effects. Physiological and hygienic norms for the intensity of acoustic shock must be established for future use in civil aviation. Foreign literature devoted to the effect of acoustic shock on man emphasizes its psychoacoustic effect. In these studies the effect of acoustic shock on human physiological functions was also studied. The function of auditory, vestibular, and motor analyzers

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L 08831-67

ACC NR: AT6036691

was investigated, together with cardiovascular activity, mental working capacity, electrocutaneous resistance, and hormone and carbohydrate metabolism. EEG's and EKG's were also recorded. 0

Two series of experiments were conducted with human subjects: in the first the effect of a single acoustic shock with an intensity of 2.5, 5.0, or 7.5 kg/m² was studied, and in the second the cumulative effect of acoustic shock was investigated for 5 days.

Experimental results showed no reliable physiological changes under the influence of a single acoustic shock with an intensity of 2--2.5 kg/m².

However, an acoustic shock of 5--5.5 kg/m² causes shortening of the R--R₁ interval of an EKG and decrease in the speed of arithmetical calculation. After single acoustic shocks of 7--7.5 kg/m², a moderate and brief disruption of the quality and speed of arithmetical calculation was noted. In addition, desynchronization of the alpha-rhythm and decrease in its amplitude were observed, as well as quickening of the pulse. Repeated and cumulative effects of acoustic shocks in the 7--7.5 kg/m² intensity range pro-

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L 08831-67

ACC NR. AT6036691

duced changes [not described] in mental working capacity, EEG, EKG, and in the function of the auditory, vestibular and motor analyzers. However, there were no major discrepancies in humoral and endocrine function. Repeated acoustic shocks with an intensity of 9--9.5 kg/m² caused unfavorable psychoacoustic reactions, accompanied by shuddering and fright. Subjects complained of headaches, noise, and a full and stuffy feeling in the ears. Otoscopic examination showed small hemorrhages in tympanal epithelium. At the same time, the corticosteroid level in the blood increased reliably, indicating activation of the pituitary-adrenal system. Changes in other physiological functions conformed to the pattern described above. The cumulative effect of acoustic shocks of 9.5 kg/m² is demonstrated by the relative degree of physiological change produced under these conditions and by the unfavorable psychoacoustic reactions. (W.A. No. 22; ATD Report 66-1167)

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3

L 0033-67 EMT(1) SCTB DD/GD

ACC NR: A76036682

SOURCE CODE: UR/0000/66/000/000/0382/0384

AUTHOR: Chupok, A. V.; Mirzoyov, D. H.; Solomonov, V. H.

ORG: none

TITLE: Effect of acoustic shock waves caused by modern aircraft on human organism
/Paper presented at the Conference on Problems of Space Medicine held in Moscow from
24-27 May 1966/

SOURCE CODE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy
kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii,
Moscow, 1966, 382-384

TOPIC TAGS: sonic boom, electroencephalography, human physiology,
psychophysiology, acoustic biologic effect

ABSTRACT:

The advent of supersonic aircraft has made it necessary to study the effect of pulsed noise (sonic boom or acoustic shock) on the human organism. Experiments were conducted for this purpose with healthy subjects aged 22--52 at an observation point located under a flight path. The following physiological indices were recorded prior to, during, and after the acoustic shock: brain biopotentials (EEG), cardiovascular activity (EKG recorded

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L 08838-67

ACC NR: AT0036682

on a TEK-1 apparatus), and the quality of work. Auditory acuity was studied, together with the electrical sensitivity of the visual analyzer, the duration and latent period of the visual afterimage, and the corticosteroid level in the peripheral blood (all both before and after shocks). To supplement these data, a questionnaire was distributed to inhabitants of a city located under a flight path.

Acoustic shocks with intensities up to 6.4 kg/m^2 , produced by an aircraft cruising over the observation point, caused some brief physiological shifts in man: quickening of the pulse by 10--46 beats/min, and decrease in the amplitude of the alpha rhythm of an EEG. However, these shifts did not exceed physiological norms and returned to initial levels within 1--2 min.

No substantial changes were observed in the following indices after an acoustic shock of 6.4 kg/m^2 : heart biopotentials, auditory acuity, electrical sensitivity of the eye, duration of the visual afterimage and its latent period, and corticosteroid levels. The quality of work, judged by the ability to estimate microintervals of time, decreased insignificantly at the moment of acoustic shock and returned to initial level rapidly. Acoustic shocks with intensity levels up to 7.5 kg/m^2 did not produce any physiological shifts.

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W 00038-67

ACC NR: A16036682

Some booms produced the following effects on people living under flight paths, according to data from the questionnaire: strong irritating effect -- 58%, medium effect -- 25%, and weak effect -- 0.6% of responses. In 27.2% of cases no irritating effect was reported. The following results were obtained with people subjected to the multiple effect of pulsed noise: strong irritating effect in 3.6% of cases, medium irritating effect in 29.3%, and weak effect in 20.8%. In 46.3% of the cases acoustic shocks did not cause any unfavorable effects. Apparently, many people adapt to the effect of pulsed noise, and do not experience the unpleasant effects of acoustic shock. [W. A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3

ACC NR: AT0000000

SOURCE CODE: UR/0000/66/000/000/0217/0280

AUTHOR: Mirzoyev, B. M.; Malov, Yu. I.; Virovets, O. A.

ORG: none

TITLE: Effect of an acoustic shock wave on some hormonal and endocrine functions of the
hypothalamus. Paper presented at the Conference on Problems of Space Medicine held
in Moscow from 14-27 May 1966/

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy
kosmicheskoy meditsiny. (Problems of space medicine); Materialy konferentsii,
Moscow, 1966, 279-280

TOPIC CLASS: biologic effect, sonic boom, endocrinology, human physiology,
pituitary gland, adrenal gland

ABSTRACT:

The cumulative effect of acoustic shock waves was studied in two series of experiments. In the first series, the effect of
5, 10, 20, 40, 80, and 160 waves was studied under laboratory
conditions. In the second series, the effect of 10 waves of
7-7.5 kg/cm² (first series) and 10 waves of 7-7.5 kg/cm²
with intervals between impacts. The results of the experiments
for 5-10 days at the same time of day (total number of animals not given).
Card 1/3

ACC NR: AAF 6953

physiological functions, including heart rate, blood pressure, etc., were recorded prior to each acoustic shock and 15, 30, and 45 minutes later. Blood and cortisol levels were also determined at each time, as well as urinary sodium, nor epinephrine, or adrenaline, creatinine, and sodium excretion, both before and after each experiment.

Experimental results showed no significant changes in the blood-sugar level after either individual or multiple acoustic shocks. A tendency to increase diuresis was noted on the first day of the first series of experiments, on the 5th day this tendency was reversed. In the second series, diuresis persisted throughout the experiment. More creatinine was excreted on the first day of the first series and less on the fifth day (corresponding to changes in diuresis). In the same subjects sodium excretion increased on the first day. However, in the second group there was only a tendency toward increased sodium excretion on the fifth day. Remaining indices, such as adrenaline and epinephrine levels, did not change significantly, indicating a lack of influence of acoustic shock at the given levels. However, it must be remembered that shifts in diuresis and in sodium and creatinine excretion in the first series (with acoustic shocks of lower intensity) were more pronounced than in the second group.

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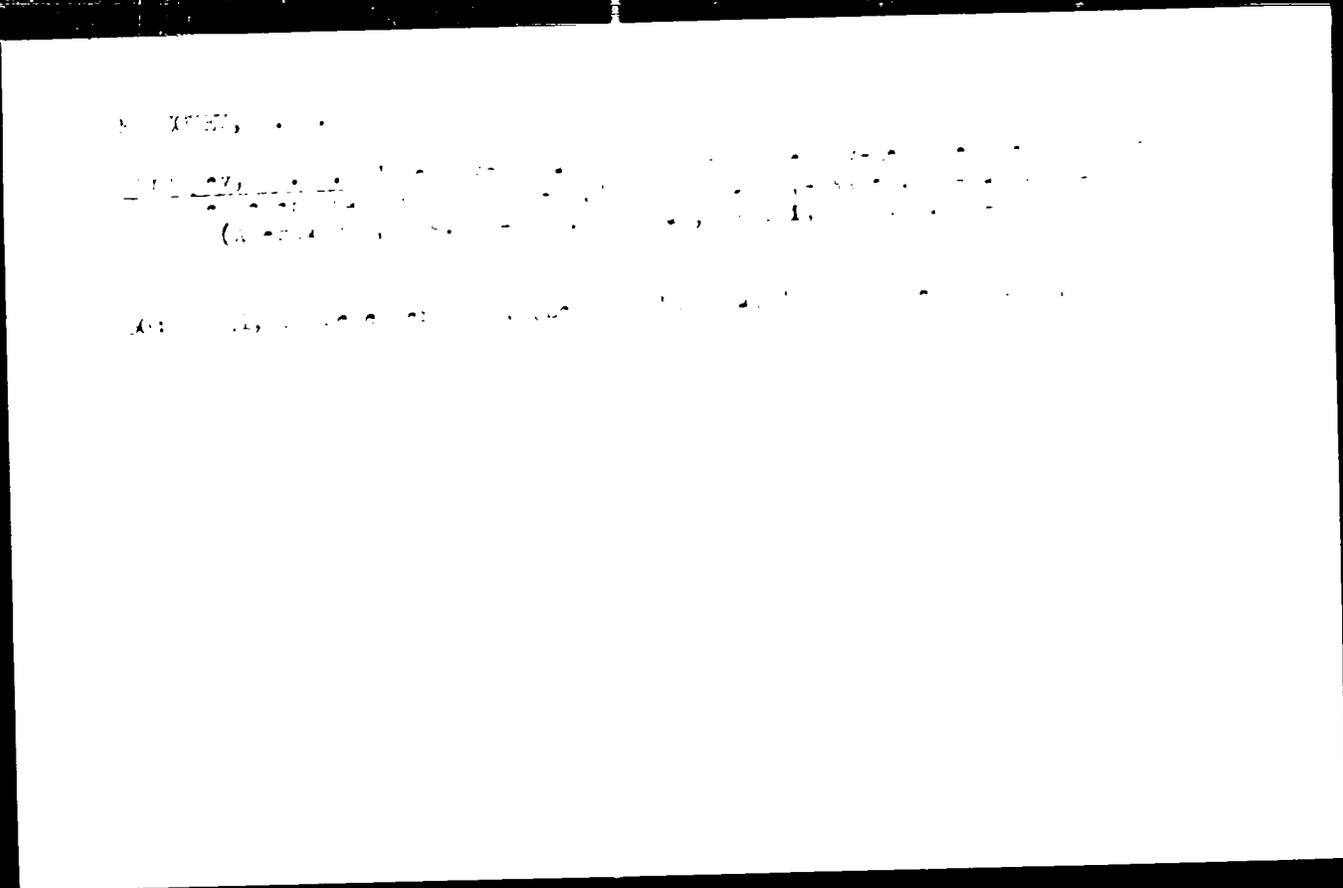
ACC NR: AT6036653

Corticosteroid analysis showed no change in the first series (acoustic shock of 7--7.5 kg/m²). However, an increased corticosteroid level was observed throughout the second series (shock intensity of 9--9.5 kg/m²). These data indicate that certain levels of acoustic shock can activate the pituitary-adrenal system and render an unfavorable effect on the organism.

[W. A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3



MIRZOEV, B. R.

"Optical Investigation of Fatigue of Materials Using Transparent Samples,"
Tr. Azerb. un-ta. ser. fiz. -mater., No 3, 1953, pp 153-158

The author describes the apparatus and results of investigations of fatigue of samples prepared from plexiglass, glass, and rock salt. He states that this method cannot be successfully used for fatigue investigations because the tested materials did not manifest fatigue phenomena in the polarization setup.

RZhMekh, No 2, 1954

ALIYEV, M.; ABDULLAYEV, G.; MIRZOYEV, B.

Conductivity of p - n junction of selenium rectifiers at strong fields
and different temperatures. Izv.AN Azerb.SSR.Ser.Fiz-tekh. i khim. nauk.
no.1:37-47 '58. (MIRA 12:3)
(Selenium) (Electric current rectifiers)

SOV/112-59-4-7830

9(C)

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 4,
pp 200-201 (USSR)

AUTHOR: Aliyev, M., and Mirzoyev, B.

TITLE Method for Producing High-Voltage Selenium Rectifiers

PERIODICAL: Izv. AS Azerbaydzhanskaya SSR. Ser. fiz.-tekhn. i khim. nauki,
1958, Nr 2, pp 55-64 (Summary in Azerbaydzhanian)

ABSTRACT: The method of producing rectifying cells described in the article is distinguished by a simple electrolytic vat, health safety, and fire safety of the electrolyte. The method permits producing selenium rectifying cells for an effective value of the reverse voltage of 30-40 v, with a forward voltage complying with existing standards. The method was tested with both sulfur-coated and bare rectifying cells. After selenium crystallization and sulfur coating, the cell was placed in the vat in such a way that only the selenium surface contacted the electrolyte. A platinum disk of 70-mm diameter was placed in parallel with the cell; it served as an anode. Distilled water or an

Card 1/2

SOV/112-59-4-782r

Method for Producing High-Voltage Selenium Rectifiers

aqueous solution of zinc acetate with a concentration up to 0.1% was used as an electrolyte. During the first 2-3 min the reverse resistance would appear to grow; however, this process would gradually wane so that the treatment would be ineffective if held over 5-6 min. These conclusions are drawn: the reverse resistance rise is due to: (1) scarification and straightening of the selenium surface which leads to the formation of a dense coating of electronic semiconductor that has a uniform thickness, (2) cleaning of the surface semiconductor coating from bromine admixture and formation of amorphous selenium on the surface which raises the efficiency of forming but causes a decrease in the forward voltage drop prior to the forming. The good results of treatment of the sulfur-coated elements with zinc-acetate solution can be explained by an additional deposition of zinc on sulfur and by a subsequent formation of zinc sulfide which acts as an electronic semiconductor.

Bibliography: 10 items.

E. N. U.

Card 2/2

S/O-8/61/000/010/082/100
A001/A101

AUTHORS: Mirzoyev, B.R., Baukin, I.S.

TITLE: Description of a special device for introducing probes into semiconductor materials

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 265, abstract 10E298
("Uch. zap. Azerb. un-t. Fiz.-matem. i khim. ser.", 1960, no. 3, 71-73)

TEXT: The design of this device is based on the system of preparation-guides which makes it possible to direct the probe relative to the specimen and to introduce it into the desired region of the object with an accuracy of 0.1 mm. The probes are moved under the control of micrometers; they pass preliminarily through a special furnace maintaining the temperature of the probe at the level necessary for a free implantation of the probe into the specimen.

A. Zhdan

[Abstracter's note: Complete translation]

Card 1/1

30666

9/137/61/000/010/019/056
A006/A101

189500

AUTHORS: Mirzoyev, B.R., Bezdeyny, N.M., Zeynalov, A.Kh.

TITLE: An automatic unit for zonal melting

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 1961, 43, abstract
100338 ("Uch. zap. Azerb. un-t Fiz.-matem. i khim. ser.", 1960,
no. 6, 27 - 32)

TEXT: The authors describe an automatic unit for zonal melting and equalization of the composition of semiconductor materials with a resistance heater. The unit is equipped with a device registering the number of passes. Zonal melting can be conducted both in a vacuum and inert gas atmosphere. Results of zonal refining of Sb selenide are given. At a motion speed of the zone as high as 0.5 mm/hour, single crystals of Sb selenide of up to 20 - 25 mm length are obtained. The admixtures of Fe, Cu, As, Al, Bi revealed, show a distribution factor below one.

A. Nashel'skiy

[Abstracter's note: Complete translation]

Card 1/1

MIRZOYEV, B.R.; ZEYNALLY, A.Kh.; LEHEDEVA, N.N.

Some properties of 40% alloys of antimony selenide and sulfide.
Uch. zap. Akad. Nauk SSSR Ser. Fiz. mat. i inzh. Nauk 1970, No. 1, p. 1502-1503.

(MIRA 1971)

(Antimony alloys: Spectra)

L 60975265 EWA(h)/EWT(L)/EWT(S)/EWP(D)/T/EWP(t) Pz-6/Pch TSP(h)
AT/JD UR/9033/63/000/003/0087/0090

ACCESSION NR: AT5018048

AUTHORS: Aliyev, M. G.; Mirzoyev, B. R.

23
22
67

TITLE: The electrical properties of the semiconductor indium sulfide

SOURCE: Baku, Azerbaydzhanskiy gosudarstvennyy universitet. Uchenyye zapiski. Seriya fiziko-matematicheskikh nauk, no. 3, 1963, 87-90

TOPIC TAGS: semiconductor, electric property, indium, sulfide, Hall effect, conductivity, thermoelectric electromagnetic force

ABSTRACT: The electrical conductivity, Hall constant, and thermoelectric electromagnetic force of polycrystalline InS were studied in the interval 90-760K. The Hall effect was measured at fields of 1800-10 000 oersted; the thermoelectric electromagnetic force was measured relative to copper; and all measurements were made in a vacuum on the order of 10^{-3} mm Hg. Internal conductance was found to begin in samples with resistivity of 137 and 789 ohm cm at 580K, but a specimen with resistivity of 0.332 ohm cm displayed no internal conductivity at any temperature up to 760K. For a specimen with resistivity of 137 ohm cm, the Hall constant declined sharply with increase in temperature in the range of internal conductivity. The width of the forbidden zone, determined from the

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L 60975-65

ACCESSION NR: AT5018048

temperature dependence of conductivity and of the Hall constant, was found to be 1.36 and 1.26 ev respectively. The temperature dependence of the Hall mobility was found to follow the law $T^{-1.57}$ in the investigated temperature interval. At the upper range of investigated temperatures the thermoelectric emf declined with increase in temperature. At lower temperatures, beginning at about 170K, the emf increased markedly with decrease in temperature. The entrainment of current carried by phonons produced anomalously large values of thermoelectric emf. Orig. art. has: 4 figures.

ASSOCIATION: Azerbaydzhanskiy gosudarstvennyy universitet (Azerbaijan State University)

SUBMITTED: 00

ENCL: 00

SUB CODE: SS EM

NO REF SOV: 003

OTHER: 000

Card 2/2 10

ACC NR: AF6036785

(A)

SOURCE CODE: UR/0363/45/000/011/1948/1952 .

AUTHOR: Korsunskaya, N. Ye.; Lebedeva, N. N.; Mirzoyev, B. R.; Shefrazov, K. K.

ORG: Institute for Semiconductors AN SSSR (Institut poluprovodnikov AN SSSR); Azerbaidzhan State University im. S. M. Kirov (Azerbaydzhanskiy gosudarstvennyy universitet)

TITLE: Production and semiconducting properties of single crystal of In_4S_5

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 11, 1966, 1948-1952

TOPIC TAGS: semiconductor single crystal, indium compound, sulfide

ABSTRACT: The In_4S_5 used in the experiments was synthesized in a quartz ampoule evacuated to 0.133 newtons/ m^2 , in a horizontal tubular furnace whose temperature was automatically regulated with a EPP-09 instrument. Visual observations and thermographic recordings show that at a temperature of 600° there is a rapid exothermic reaction between indium and sulfur with the formation of a solid reaction product. The temperature is then raised to $1000^\circ C$, at which temperature there already exists an alloy of the composition In_4S_5 , and then reduced at a rate of $70-80^\circ$ /hour to a temperature of $770^\circ C$, at which temperature the reaction takes place. At this temperature, the reaction lasts for 5-6 hours. The temperature is then reduced from

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UDC: 546.682:221.537.311.33

ACC NR: AP6036785

770° to 700°C at a rate of 10°/hour. The product is a porous ingot of a dark gray color. Single crystals of In_4S_5 were grown from the ingot by the method of zone melting. The product single crystals were found to have a monoclinic crystal system, and lattice constants agreeing with previous data. The final experimental samples had dimensions of 4 x 2 x 0.3 mm. Detailed studies were made of the electric and photoelectric properties of these monocrystalline plates. Determinations were made of the width of the forbidden band, and of the energy of the acceptor levels. The mobility of the basic carriers was determined. It was concluded from the data that crystals of In_4S_5 have considerable photosensitivity over a wide spectral range at reduced temperatures. Orig. art. has: 6 figures and 2 tables.

SUB CODE: 20/ SUBM DATE: 03Feb66/ ORIG REF: 005/ OTH REF: 010

Cord